

Hood River Bull Trout SMU

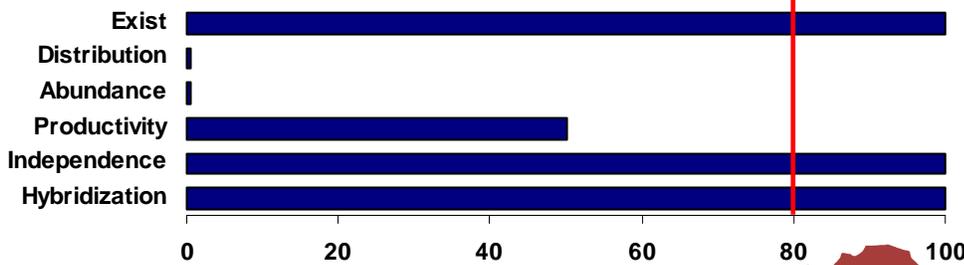
ESA Designation:
Threatened 1998

State Status:
Critical

Interim Assessment:
At Risk

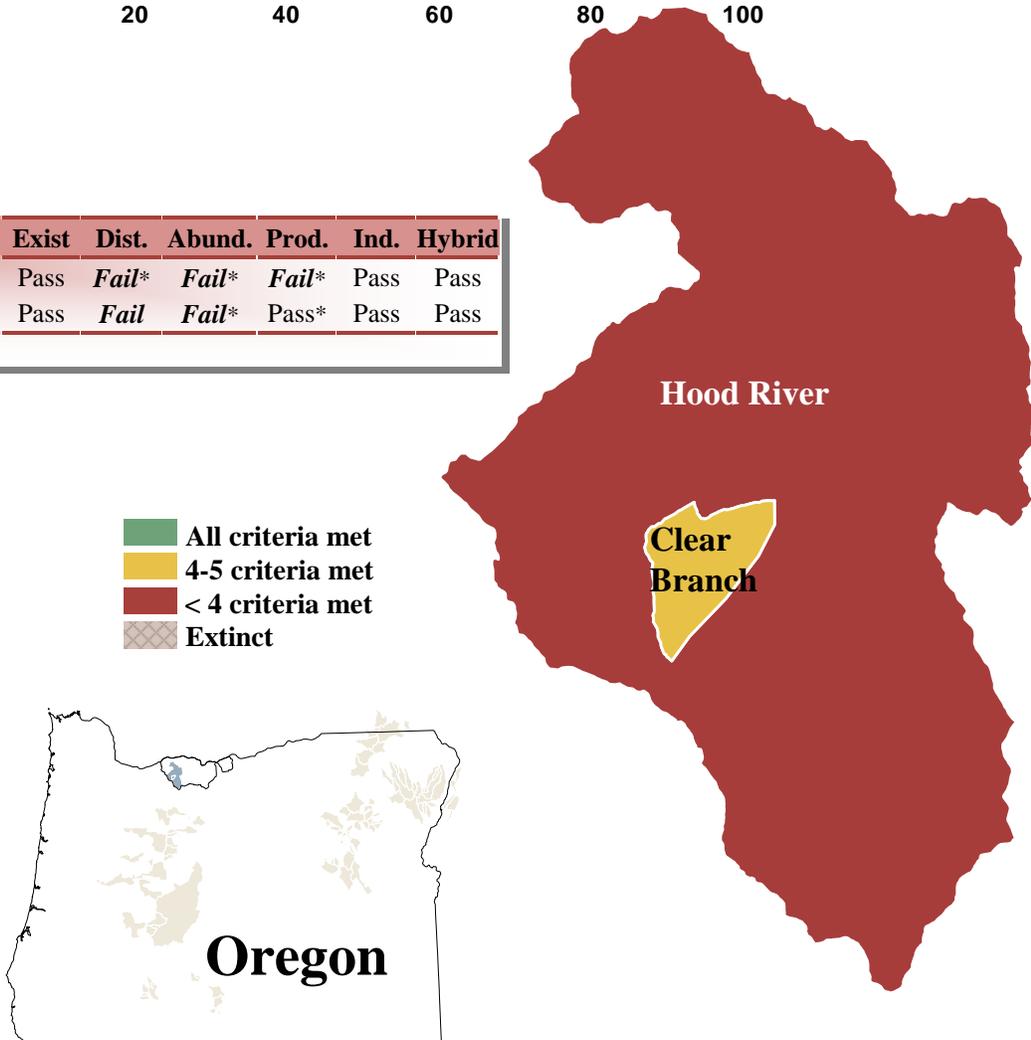
Two populations, Clear Branch and Hood River, comprise the Hood River Bull Trout SMU. Genetic analysis shows Hood River bull trout to be unique; the basin was likely colonized by fish from both coastal and Snake River populations. Historically, bull trout in the Hood River basin functioned as a single population. Construction of the Clear Branch Dam in 1969 fragmented the population and spawning habitat. Distribution of both populations is extremely limited and abundance is precariously low. This SMU meets three of the six interim criteria and is classified as 'at risk'. Limited data sets and inferences from other information for populations in this SMU provide a qualified level of confidence in the assessment of the interim criteria.

Percent of Populations Meeting Criteria



Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Hood River	Pass	<i>Fail*</i>	<i>Fail*</i>	<i>Fail*</i>	Pass	Pass
Clear Branch	Pass	<i>Fail</i>	<i>Fail*</i>	Pass*	Pass	Pass

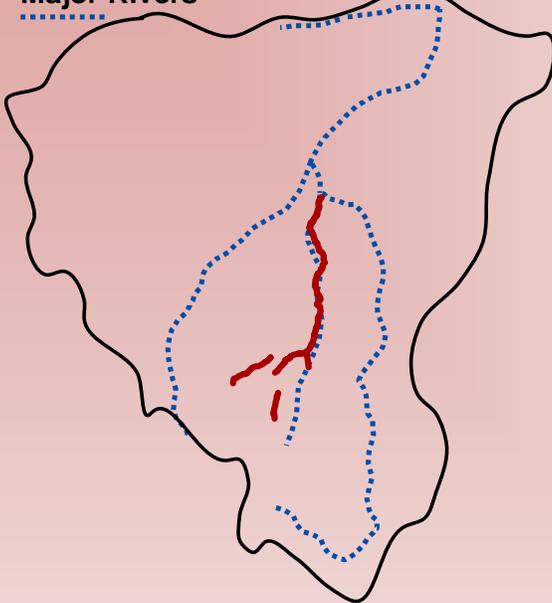
**Inferred*



Distribution - Fail

Bull Trout Spawning /Rearing

Major Rivers



- Current distribution likely reflects historical distribution; however dams and diversions have resulted in fragmentation and limited spawning habitat to a few tributary streams.
- Clear Branch population is isolated above the Clear Branch Dam and spawning distribution is restricted to eight km. This population is at a high risk of extinction due to stochastic events and fails the criterion.
- Spawning distribution of the Hood River population is highly fragmented and limited to a few short stream sections totaling <ten km. Water temperature and glacial melt affects the quality of spawning habitat. This population fails the criterion.
- Migratory bull trout from the Hood River population have been located rearing in the Columbia River.

Additional Information

- Both populations in the Hood River Bull Trout SMU are native fish sustained by natural production and pass the reproductive independence criterion.
 - Powerdale Dam on the Hood River is scheduled for decommissioning and removal starting in 2010.
 - The Sandy River is included in the SMU. Even though a self-sustaining population does not currently exist in the Sandy River, recent bull trout sightings suggest this river as a possible location for recovery.
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Abundance - Fail

- Dam counts, redd surveys, and snorkel observations suggest abundance of both populations is extremely low. Each population likely contains fewer than 100 adults. Counts of adult bull trout over the Powerdale Dam ranged from two to 28 between 1992 and 2001.
- The relative abundance of the Clear Branch population is larger than that of the Hood population, and is considered to be the ‘core’ of the Hood River SMU.
- Bull trout populations in this SMU are at risk of the deleterious effects of genetic drift and inbreeding, and fail the abundance criterion.

Hybridization - Pass

- Brook trout are present in the Hood River Basin, but are not sympatric with bull trout and not considered a threat. Both populations pass this criterion.

Productivity – Fail

- Data specifically describing productivity do not exist.
- Snorkel counts suggest the Clear Branch population is likely stable and sustaining itself. The population passes the criterion.
- The Hood River population fails the criterion due to extremely low abundance, limited distribution, and highly variable capture rates at the Powerdale Dam.